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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,081	01/10/2007	Ramon Rodriguez Cuartas	293703US0PCT	5870

22850 7590 07/22/2009
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

BELYAEV, YANA

ART UNIT	PAPER NUMBER
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1791

NOTIFICATION DATE	DELIVERY MODE
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07/22/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/589,081	Applicant(s) RODRIGUEZ CUARTAS ET AL.	
	Examiner YANA BELYAEV	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 15-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 August 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/11/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 11 August 2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Election/Restrictions

1. Applicant's election with traverse of claims 1-14 in the reply filed on 1 June 2009 is acknowledged. The traversal is on the ground(s) that the present application does include claims that are so linked as to form a single general inventive concept and that the Examiner's contention that the technical feature common to the claims is known in the art is a basis for attempting to reject the claims not a basis for issuing a restriction requirement. Furthermore, the applicants respectfully submitted, that a different field of search really does not exist with regard to the claims of the present application therefore a serious burden has not been placed on the Examiner to consider all of the claims in a single application.

This is not found persuasive because lack of unity of invention may be directly evident "*a priori*," that is, before considering the claims in relation to any prior art, or may only become apparent "*a posteriori*," that is, after taking the prior art into consideration. If it can be established that a single

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feature or a group of features common to both independent claims is known, then there is lack of unity *a posteriori*, since the single feature or group of features common to both independent claims is not a technical feature that defines a contribution over the prior art (see MPEP 1850 (II)).

Furthermore, since the instant application entered into the national phase before the USPTO based on a PCT application and the rules that apply to the present application with regard to unity of invention are set forth in 37 CFR § 1.475 to 1.477, as the applicant stated in the response filed on 28 April 2009, the applicant is respectfully reminded that the criteria identified for proper requirement for restriction as set forth in Section 803 or 806 of the MPEP are not applicable to the instant application.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 15-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction requirement in the reply filed on 1 June 2009.

Specification

1. The disclosure is objected to because of the following informalities: all density values in the disclosure lack units. For example, paragraphs 2 and 12 refer to density values but lack any units.

Appropriate correction is required.

Drawings

1. The drawings are objected to because there is only one figure in the application and it is labeled as "Fig. 1" which is incorrect - as set forth in 37 CFR 1.84(u) when there is only a single view used in an application to illustrate the claimed invention it must not be numbered and the abbreviation "Fig." must not appear (note - any correction to the instant drawing to remove the reference to "Fig. 1" will also require correction of the instant specification as well). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures

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must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9-10 and 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The density ranges in claim 9 and claim 10 do not have any units. For purposes of examination, the examiner has assumed the density ranges are in SI units, namely g/cm³.

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Claim 12, lines 2-3, "the second tank" lacks antecedent basis.

Claim 13, line 2, "the first tank" lacks antecedent basis.

Claim 13, line 3, "the batch materials" lacks antecedent basis.

Claim 14, lines 2 and 3, "the second tank" and "the first tank" lack antecedent basis.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 3, 6-8, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over French Patent 0302373 (US Patent Application

2004/0224833 used as a translation) (Jeanvoine hereinafter) and further in view of US Patent 3,332,763 (Basler hereinafter).

Regarding claims 1 and 3 and 7-8, Jeanvoine discloses a process for manufacturing flat glass rich in lead oxide, comprising the continuous floating (paragraph 12), of a glass comprising a very substantial quantity of lead oxide by weight, such as 30% of lead oxide by weight (paragraph 101) on a bath of molten metal (paragraph 14).

However, it would be reasonable for one of ordinary skill in the art at the time of the invention to interpret comprising a very substantial quantity of lead oxide by weight to include quantities of 50% or greater by weight – the example of 30% in Jeanvione is merely one embodiment and is not limiting to the term very substantial quantity.

Jeanvoine does not specifically disclose that the float plant has a neutral gaseous atmosphere or that the molten metal has a higher density than that of the glass.

However, since one of the limitations of the claim is that the glass floats on the bath of molten metal (claim 1, line 2) then the bath of molten metal inherently has the property of having a higher density than that of the glass, or floating would not be possible.

Basler teaches a float glass process that is employed to form a conventional commercial glass. Specifically, Basler teaches that the glass is

continuously floated (column 3, lines 8-10) in a float plant with a neutral gaseous atmosphere, which is comprised principally of nitrogen (column 1, lines 49-52). It would have been obvious to make a neutral gaseous atmosphere, comprising primarily nitrogen, in the float plant which is disclosed by Jeanvoine in order to protect the molten metal from oxidation (column 1, line 61) as suggested by Basler.

Regarding claim 6, Jeanvoine discloses that the molten metal treatment station is included with said bath (paragraph 115).

Regarding claims 11-14, Jeanvoine discloses that before the float plant, the glass is melted in a furnace that includes at least one submerged burner (paragraph 115), wherein the furnace comprises at least two tanks in series (paragraph 115). That the first tank is equipped with at least one submerged burner and is fed with the batch materials other than lead oxide and the second tank is fed with lead oxide (paragraph 101). Jeanvoine discloses an example where the second tank (paragraph 55) is at a lower temperature than the first tank (paragraph 49).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeanvoine in view of Basler as applied to claims 1, 3, 6-8, and 11-14 above, and further in view of US Patent 3,881,905 (Cramer hereinafter).

Regarding claim 2, Jeanvoine in view of Basler does not disclose that the neutral gaseous atmosphere comprises less than 5 ppmv oxygen.

Cramer discloses a float bath process in Example II that oxygen comprises approximately 0.01 percent by volume of the total atmosphere (column 7, lines 56-61), which is less than 5 ppmv oxygen.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have neutral gaseous float bath atmosphere comprising less than 5 ppmv oxygen. The rationale to do so would have been the motivation provided by Cramer that to do so would predictably ensure that no defects due to oxidation form on the glass (column 7, lines 54-56).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeanvoine in view of Basler as applied to claims 1, 3, 6-8, and 11-14 above, and further in view of US Patent Application 2005/0028559 (Hiromatsu hereinafter) and US Patent 5,120,579 (Gardner hereinafter).

Regarding claim 4 Jeanvoine in view of Basler does not disclose that the temperature of the bath of molten metal is lower than the temperature of a bath of molten metal in a float plant for a soda-lime-silica glass containing no lead.

Hiromatsu, however, discloses that the molten metal in a float plant for a soda-lime-silica glass containing no lead is between 600 and 1050 degrees Celsius and is directly correlated to the glass transition point of soda lime silica glass, which is 550 degrees Celsius (paragraph 5). Gardner

discloses that the glass transition point of glass comprised substantially of lead oxide is about 300-400 degree Celsius (column 1, lines 46-49).

Thus, it would have been obvious for one of ordinary skill in the art at the time of the invention to have the temperature of the bath of molten metal be lower in a float plant for a glass containing lead oxide than for a soda lime silica glass containing no lead, since the glass transition point of glass comprised substantially of lead oxide is less than the glass transition point of soda lime silica glass.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeanvoine in view of Basler as applied to claims 1, 3, 6-8, and 11-14 above, and further in view of US Patent 6,846,760 (Siebers hereinafter).

Regarding claim 5, Jeanvoine in view of Basler does not disclose that the temperature of the float glass is between 500 and 800 degrees Celsius.

Siebers, however, discloses that the temperature of the float glass should be between 600 and 750 degrees Celsius (column 8, lines 53-54).

It would have been obvious for one of ordinary skill in the art at the time of the invention to have temperature of the float glass is between 500 and 800 degrees Celsius. The rationale to do so would have been the motivation provided by Siebers that to do so would predictably ensure a high thermal shock resistance (column 8, lines 51-53).

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7. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeanvoine in view of Basler as applied to claims 1, 3, 6-8, and 11-14 above, and further in view of US Patent 5,073,524 (Speit hereinafter).

Regarding claims 9 and 10, Jeanvoine in view of Basler does not disclose that the glass had a density ranging from 4.3 to 5.5 g/cm³.

However Speit discloses that density of the glass is 5.2 g/cm³ (Table 4), which falls within the range of 4.3 to 5.5 g/cm³.

Since Speit discloses a glass composed of 24-46% by weight lead oxide, it is intrinsic that a glass composed of a same percent by weight lead oxide, such as the glass disclosed by Jeanvoine, would have the same density.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YANA BELYAEV whose telephone number is (571)270-7662. The examiner can normally be reached on M-Th 8:30am - 6pm; F 8:30 am- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/

Supervisory Patent Examiner, Art Unit 1791

/Y. B./
Examiner, Art Unit 1791

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